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(54) **Data storage device**

(57) There are disclosed data storage devices capable of storing, reading and writing data to storage areas of nanometer dimensions. A fluid medium (90) and particles (100) are provided between a storage medium (40) and an energy-emitting tip (20) to channel energy from the tip (20) to the storage medium (40). Conductor

molecules (120) are attached to the surface of the storage medium (40) and channel energy to the storage medium (40) from an energy-emitting tip (20). Also provided are methods of reading and writing to a storage medium (40) by making use of intermediate particles (100) and/or molecules (120) to channel beams from a tip (20) to a storage medium (40) where data is stored.

**Fig. 4**

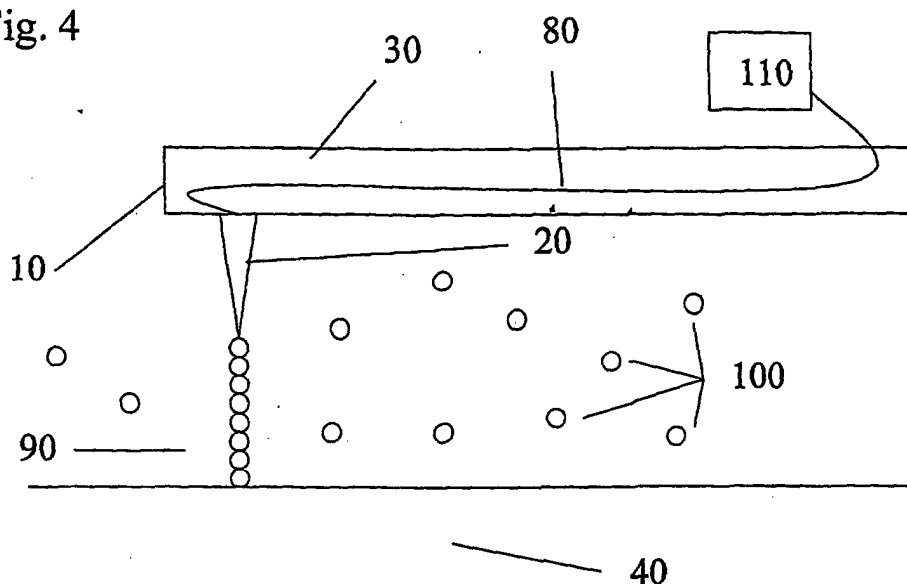
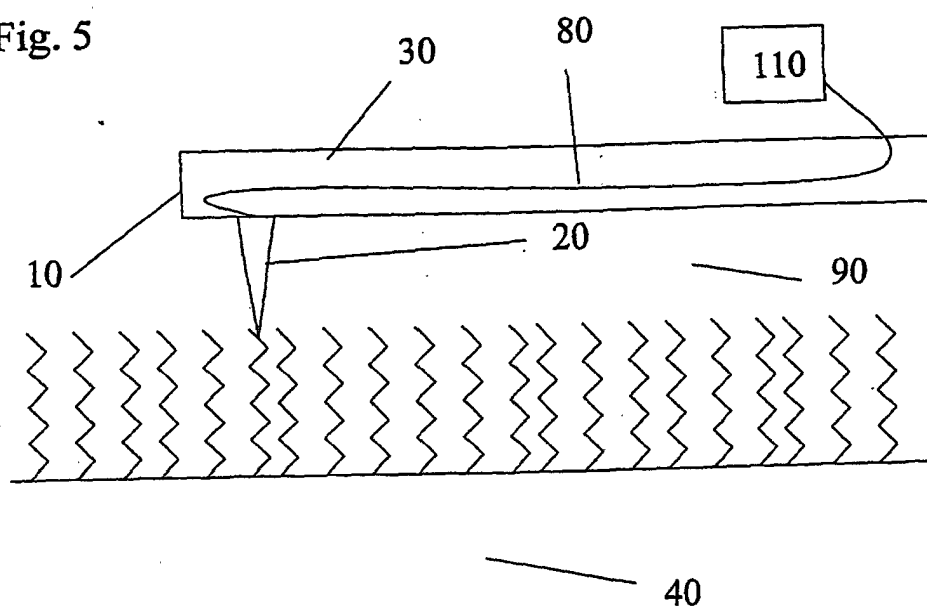


Fig. 5





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| The present search report has been drawn up for all claims                                                                                                                                                                                             |                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                              |                                              |
| Place of search<br>THE HAGUE                                                                                                                                                                                                                           |                                                                                                                                                                                                                   | Date of completion of the search<br>15 August 2003                                                                                                                                                                                                                           | Examiner<br>Fux, J                           |
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| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                   |                                                           |                                              |                                         |
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| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                   |                                                           |                                              |                                         |
| Place of search<br><b>THE HAGUE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                   | Date of completion of the search<br><b>15 August 2003</b> | Examiner<br><b>Fux, J</b>                    |                                         |
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| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                    |                                                    |                                              |
| Place of search<br>THE HAGUE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                    | Date of completion of the search<br>15 August 2003 | Examiner<br>Fux, J                           |
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